

# Bulk Density of Co-extrusion Tubes

(by American Extrusion Corporation for RIBUS, Inc.)

Purpose: To test the effects of processing aids on a tube for co-extrusion.

Equipment: American Extrusion Advantage 50

Processing Aids: **Nu-RICE**<sup>®</sup> and Myvaplex<sup>®</sup> 600

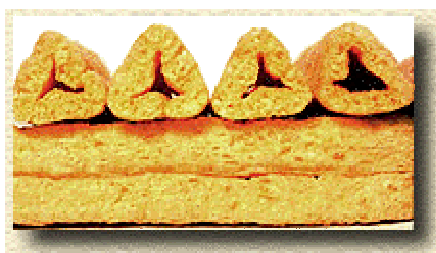
Formulation:

Wheat Flour	70%
Corn Meal	17%
Sucrose	12%
Salt	0.5%
Processing Aid	0.5%

Use Rates / Bulk Density Results: (weight of 8 tubes)

Sample #	Product	Use Rate	Bulk Density
01	<b>Nu-RICE</b> <sup>®</sup>	0.5%	18 grams
02	Myvaplex	0.5%	26 grams

Observations: The Myvaplex<sup>®</sup> formulation ran well, however, it did show a reduced definition of shape or fillible area. The **Nu-RICE**<sup>®</sup> formulation worked well and produced a noticeable improvement in the product texture and crispiness. Raw product coming out of the extruder required virtually no drying time. In addition to these benefits, the bulk density was reduced significantly. The **Nu-RICE**<sup>®</sup> Formulation allowed additional sugar caramelization to occur, which resulted in a darker color. Better seam closure was also observed after moving through the die.



Myvaplex<sup>®</sup> formulation



**Nu-RICE**<sup>®</sup> formulation

Conclusion: The **Nu-RICE**<sup>®</sup> formulation provided the desired product (better definition of shape, enhanced texture, required less drying, lower bulk density and improved product strength).